

APPLICANT(S): LIPSON, Stephen Geoffrey

SERIAL NO.: 10/552,047

FILED: September 6, 2006

Page 2

AMENDMENTS TO THE SPECIFICATION

In the Abstract:

Please amend the abstract as follows –

An apparatus for providing a light beam with spatially varying polarization. The apparatus ~~comprises~~ includes: two circumferentially curved reflectors positioned substantially opposite each other, a polarizer positioned in an optical path between the two reflectors, for polarizing light reflected from one reflector before it reaches the other. A non-polarized light beam incident along a given axis on one of the reflectors is radially reflected off that reflector, acquires predetermined polarization from the polarizer and is then reflected off the second reflector to a light beam of spatially varying polarization.

In the Specification:

Please amend page 7, lines 1-4 as follows -

After transmission through polarizer 16, the light is reflected by a second reflector 18 (with internal surface reflector), which is a conical mirror, reflector 18 having the same apex angle as that of ~~external reflector 12~~ external reflector 14, and having openings 20 on its axis large enough not to obstruct the incident light beam.

Please amend the description of Fig. 4a, at page 8, lines 1-4, as follows -

Fig. 4a is an alternative implementation of a system for producing a light beam with spatially varying polarization 10 in accordance with a preferred embodiment of the present invention. In the implementation of Fig. 4a, paraboloidal mirrors having a common focus are used for ~~reflector 12 and for reflector 14~~ reflector 14 and reflector 18. In this case, the system behaves as an afocal angular magnifier and if the incident beam has annular form and is uniform in intensity, so is the transmitted beam.

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Page 3

Please amend the description of Fig. 4b at page 8, lines 7-10 as follows -

Fig. 4b is an alternative implementation of a system for producing a light beam with spatially varying polarization in accordance with a preferred embodiment of the present invention. In Fig. 4b, a hyperboloidal mirror is used for reflector ~~14~~^{rather} 14 rather than a conical mirror, and an ellipsoidal outer mirror is used for reflector 18.